

Einstein, The Universe, and All That: An Introduction to Relativity

Black holes, an expanding universe, space and time inextricably tied together, GPS . . . What was this Einstein guy thinking?!? In this tutorial, I'll give an overview of Einstein's theories of relativity and the wild things they say about our Universe. What really happens when a particle crosses an event horizon? What is the future of the Universe? And how can we know it? Wh I'll try to touch on these questions and in so doing, give the talks in the Cosmology, Gravitation and Relativity sessions some context.